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Distribution of electric field near the surface of the aluminum oxide particle in the dust-electron thermal plasma

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Abstract

© Published under licence by IOP Publishing Ltd. We obtained the equation, which describes the distribution of electrical field in an equilibrium dust-electron plasma taking into account parameters of the electron gas inside the dust particles. The inclusion of these parameters performed on the basis of the model of "solid- state plasma," considering the condensed particle system as the ion core and the free electron gas. These calculations are performed for aluminum oxide particles.

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